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ABSTRACT

Some research that has been done into the content of texts in the last several years is reviewed. Much of this content analysis has been undertaken to assess the adequacy of treatment of particular groups in society, on the assumptions that school books are potent conveyors of attitudes and values. Some of the studies have tried to find out whether the approach in some texts may be a factor in the failure of some children to learn adequately--particularly in the reading area. This article familiarizes teachers and administrators with this research, and what its implications are for textbook selection and curriculum planning. Some of the approaches that have been taken so that people undertaking textbook selection may develop some techniques for analyzing new books in a systematic way are also discussed. (Author/RC)

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CONTENT ANALYSIS: A TOOL FOR CHOOSING TEXTS

Ellen K. Campbell

How do educators choose texts and resources for their schools? Beyond the general directions of Circular 14 or other government restrictions on text selection, they still have considerable leeway in choosing materials they feel will be appropriate for the children under their jurisdiction.

One factor in selection is almost certainly a combination of lethargy and economy: once a decision has been reached about a text, teachers grow accustomed to its approach and boards are unwilling to invest large sums of money to make changes unless compelling reasons can be cited. Often, new editions of old texts may be purchased simply because they are familiar and comfortable to use.

Effective advertising and sales techniques by publishers may be a major factor as well. "Packages" containing all kinds of ancillary materials, tie-ins with testing programs, and other extras may be particularly appealing, especially if textbook selection is left to a central purchasing group, is seen as just another end-of-year chore, or is otherwise handled more as a business transaction than a curriculum decision. The bandwagon effect of innovative methods or approaches may also affect decisions.

When more responsible methods of textbook selection are undertaken, it is still difficult to know where to start. Obviously, a teacher committee cannot undertake a trial run to see what the student response to a text is, or what difficulties will appear as it is used. The good name of a publisher may be some guide, or the reviews of texts and series that may be available through journals. But perhaps there is a need for some more systematic ways of approaching such materials.

This paper will look at some research that has been done into the content of texts in the last several years. Much of this content analysis has been undertaken to assess the adequacy of treatment of particular groups in society, on the assumption that schoolbooks are potent conveyors of attitudes and values. Some of the studies have tried to find out whether the approach in some texts may be a factor in the failure of some children to learn adequately – particularly in the reading area. Part of the purpose of the article will be to familiarize teachers and school administrators with this research, and what its implications are for textbook selection and curriculum planning. But a further purpose will be to discuss some of the approaches that have been taken, so that people undertaking textbook selection may develop some techniques for analyzing new books in a systematic way.

Content analysis is not a new approach to textbook criticism. McDiarmid and Pratt, in their monograph *Teaching Prejudice* (1971), review the major studies and discussions of social studies textbook content since the close of World War I. What has been different, in the last several years, has been the attempt to develop quantitative measures of textbook content that can be replicated by others, to replace the largely subjective "personal impression" approach.

One of the largest textbook review projects undertaken in the recent past was a six-year study during the 1960's by the Day Care Center of the University of Colorado Medical Center, a psycho-educational facility for emotionally disturbed children of elementary school age. The research group there were bothered by the greater frequencies of reading difficulties in boys than girls, especially in urban, non-white populations. Since this situation is almost axiomatic in North America, does not obtain in all countries or cultures, the researchers doubted that innate physiological, sex-linked characteristics were to blame. As a first step in isolating some causes for this phenomenon, they decided to focus on the materials used to teach American grade 1 children to read. Their studies, were compiled in 1972 in a book titled *What Children Read in School*, edited by Sara Zimet.

One limitation in some of the Denver studies should probably be pointed out. Because of their concern with the problems boys have in learning to read and their extreme psychoanalytic orientation, the interpretations of their data by some of the researchers in the group are highly questionable. If one looks primarily at their approach and the data they compiled, however, the studies are extremely provocative and useful.

Initially, the researchers examined each story in twelve reading series commonly used in the U.S. in the early sixties on several dimensions. They first looked at the kind of activity engaged in by children in the stories to see whether 1) it was more typical of children younger than six years old, 2) it was more appropriate for girls than boys, or 3) masculine activities more often ended in failure than feminine ones. Although the first two hypotheses were not borne out, there was a fairly high proportion of stories, especially "masculine" ones, which ended in the failure of children to complete something they had begun on their own.

When they analyzed stories for their themes, the highest proportion (23%) were classified as "Real Life with Positive Emotions" – that is, stories about a particularly uncomplicated family life. Some 12% were stories in which active play was the theme and another 12% involved pets. Themes each of which accounted for fewer than 10% of the stories included Outings, Imaginative Play, Folk Tales, and Work Projects. When the most important event in a six-year-old child's life is probably school, it is discouraging to find that these series set only 3% of their stories in that context.

Some other significant findings in this initial study: there was very little interaction between children and adults outside the family, only 1% of the stories included make-believe characters and only about 1% of the stories included as characters brothers or sisters over the age of six. The authors also felt that it was significant that mischief or misbehavior was almost always the province of pets or, occasionally, of preschool children.

When we contrast this study with another reported in the book, the results are discouraging. Wiberg and Trost used the same scheme to analyze a sample of books on a first-grade school

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library shelf, and then examined the circulation figures to see what grade 1 children read when they are able to choose for themselves. They found significant differences between these books and those in the reading series. The library sample contained a preponderance of books involving make-believe and animal characters, themes of folk tales, "lessons from life," nature, and "real life with negative affect." More of them included older children as characters, and more of the stories involved success and help as a story outcome than failure. When they went a step further and examined the books children had checked out, they found that children chose stories with make-believe and animal characters in preference to stories that had only children as characters; that they chose folk tales and stories of pranks in preference to stories about outings or "real life with positive affect"; and that boys, in particular, chose informational books, a theme category not represented at all in the reading texts. Boys seemed to prefer stories about boy activities, although girls seemed to show no special preference for girl activities. When the researchers looked at the outcomes of the stories chosen, they found that, despite the lower proportions of "failure" stories in the library sample, children tended to choose them. An examination of the sorts of failure in the two types of books indicated a difference, though. Failure in the reading series stories was often the result of ignorance, incompetence, or negligence, and was related to a task a child might expect to be able to complete on his own. Failure in the library books stemmed from adventuresome, daring activities, where the character either was more directly responsible for the outcome or could not realistically be expected to succeed. In addition, failure was more frequently accompanied by an appropriate negative affect – again unlike failure in the reader stories, which was usually received with the same bland happiness that pervades all the books.

If the reason for emphasizing family life as the content of readers is to maximize the identification, and hence the enjoyment of children reading the books, these data would appear to suggest that the effort has been wasted. Children six years old appear to enjoy stories that have little direct connection with their own life, they are able to cope with negative feelings in books, and they like factual materials.

In the Denver studies, the total story was the unit examined. In a study conducted concurrently by Parker and Campbell (1971), also on grade 1 reading materials, the focus was on illustrations. Examination of manuals for basal readers at that level had indicated that children were encouraged to spend as much time in "reading the pictures" and relating stories to their own experiences as in reading the words. One of the research questions was to determine the proportion of each series devoted to illustrations and the meaning conveyed by the pictures as opposed to print. The four series devoted from 48% to 59% of the space in their books to illustration. When the text alone was examined to see whether it conveyed any information not available in the illustrations, the results were startling. In one series, only 2% of the pages conveyed any additional meaning through the written word; in the others, the proportions were 26%, 35%, and 78%. If we wish to help children develop some intrinsic motivation to read, surely one requirement is that there is something to be gained from the words that cannot be discovered equally well by examining the pictures!

It was also found that by examining locale and the relationship between the numbers of children, of parents, and of other adults in the stories, it was possible to assess whether a series had a "home" orientation or a "community" orientation, and whether there were significant differences between series on this dimension. If schools wish to encourage their children to hold positive views about the diversity of society, a community-oriented series might be a better choice than one in which most action involved family members at home. It is interesting to note again that the proportion of illustrations showing school scenes in the four reading series ranged from none at all in one series, through 5% and 10% to a high of 15% in the last series. Are textbook writers assuming that children have no positive associations with school that could be used as textbook material?

More recently, and from a different perspective, the Women on Words and Images, a New Jersey Group, (*Women*, 1972), examined 134 elementary reading texts from 14 publishers, ranging from grades 1 to 6. While many of the books they examined are not available to Canadian schools, the study is worth noting because the researchers provide much information about their method that would be useful to other groups embarking on similar undertakings. Furthermore, while the results of the study may not be *directly* applicable to Canadian textbooks, it is likely that similar results would be found if textbooks here were assessed.

The group began by categorizing the 2,760 stories in their sample, on several dimensions, and found the following ratios:

Boy-centered stories to girl-centered stories	5:2
Adult male main characters to adult female main characters	3:1
Male biographies to female biographies	6:1
Male animal stories to female animal stories	2:1
Male folk or fantasy stories to female folk or fantasy stories	4:1

Stories were also analyzed by theme, in this case in two broad catagories: Active Mastery and Second Sex. Within the Active Mastery category, there were such subgroupings as ingenuity, perseverance and initiative, strength, bravery and heroism. In the Second Sex category were themes of passivity and dependence, docility, altruism, goal constriction, incompetency and mishaps. Both by comparing the numbers of stories about boys that have particular themes with the numbers of similar stories about girls, and by comparing examples, the authors make the case that reading texts perpetuate stereotypes of masculine and feminine behavior that are not only out of touch with current changes in society but probably do not reflect the way "real" children have acted for many years, if ever. In how many neighborhoods are little girls content to stand around watching the boys do active, interesting things? Don't they also ride bikes, roller skate, and play hide and seek like their brothers? In how many situations do boys always take the lead in devising and organizing games and things to do?

Specifically, when the group looked for children who met situations in the stories with intelligence, who tried unusual, thoughtful or daring approaches to problems, or who built or created things or used their wits in some way, they found 164 instances of such behavior – 131 involving boys, 33 involving girls. "The discrepancy is so large," the writers comment, "that the girl who figures out how to earn bus fare when she finds herself stranded seems like a visitor to these pages." In contrast, when they examined the stories for examples of passivity, docility, and pseudo- or real dependency, they found 119 instances of girls or mothers behaving in such fashion, and 19 examples of boys. "Girls often depend on boys when they are quite capable of handling the situation themselves. One finds she can only skate when she has Mark to lean on; another can only reach a jar if a boy brings a stepladder."

Even more discouraging are the number of times boy characters in the books actively disparage girls. A collection of quotes from the readers documents this:

"Look at her, mother, just look at her. She is just like a

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girl. She gives up."

"We don't want to play [against] girls," said Jeff. "They'd be too easy to beat."

One motivation for writing books in which boys predominate and are more active and interesting is undoubtedly to meet the sort of criticism that the Denver researchers raised: because boys have more difficulty than girls in learning to read, it is important that the books appeal to them. But we might ask whether such appeal needs to be at the expense of girls. There is some evidence that it does not in a relatively informal study of trade books conducted by Sherrill Cheda (1972). She found that while the preponderance of books "for girls," especially in the upper grades, are family or romance books and do not appeal to boys, there is a small body of literature that features girls (who are usually orphans and/or tomboys), such as Heidi, Anne of Green Gables, Pippi Longstockings, Harriet the Spy, and Dorothy of Oz. These characters have as exciting and intriguing adventures as the characters in boys' books. Most significantly, when boys are introduced to them, they enjoy these adventures as much as they do stories about boys.

Another aspect of the readers the New Jersey group examined was the adult role model presented. Within the home, the authors found, responsibility was rigidly assigned. Mothers performed all the "inside" chores, and if fathers were seen working around the house at all it was in painting, fixing things, or yard work. Mothers never seemed to garden or to repair anything. They did not read, undertake projects on their own, or participate in activities outside the home. Most particularly, mothers did not work. In the 134 books examined, there were only three working mothers. When employed people appear in the readers, the variety of roles open to women is also markedly different from those for men. Men appeared in the readers in 147 different jobs, ranging from professor and judge to peddler and clown, while women appeared in only 26 jobs – librarian and doctor probably being the most prestigious, and fat lady in the circus and witch at the bottom of the scale.

A study with a slightly different emphasis has been undertaken at the Center for Economic Education at North Texas State University, to determine whether quantitative and qualitative bias exists in certain elementary text materials in relation to the kinds of work modes presented. William Luker and Floyd Jenkins (1973), who conducted the research, analyzed the elementary reading texts adopted in Texas in 1970/71. First of all, they classified jobs mentioned as professional, technical-vocational, or semi-skilled and unskilled, using the Hollingshead index. They then classified references as positive or negative, based on three criteria: apparent standard of living, personal demeanor, and overt comments. They also judged whether the job was treated in a realistic manner or not, and whether the work mode was of primary, secondary, or tertiary importance in the story. They found that jobs accorded less status – the technical-vocational and unskilled – are mentioned less frequently, less realistically, and less positively and are given less importance in the story than professional or paraprofessional work modes.

Probably because the content of social studies seems intrinsically more "controversial" than that of other subjects, there are, as has been mentioned previously, a good many content analysis studies in this area. We are therefore able to examine Canadian material, rather than having to extrapolate from U.S. judgments to what "may be the case" in Canadian books.

The major study of social studies texts in Canada, and one that can easily serve as a model for careful and thorough textbook analysis, was undertaken by Garnet McDiarmid and David Pratt of OISE for the Ontario Human Rights Commission, and published under the title *Teaching Prejudice*. All the social studies books authorized for use in Ontario schools and in print in 1968 were included in the main body of this study.

McDiarmid and Pratt were interested in examining the treatment in texts of certain groups. On the basis of their importance in a Canadian context, they limited the study to Jews, immigrants, Moslems, Negroes, and North American Indians. They included "Christians" (not Catholics or Protestants) as a control group: it was assumed *a priori* that this group was presented favorably, and texts alluded to it frequently enough to enable the researchers to compare its treatment with the other groups.

First the researchers wished to examine the verbal treatment of each group. To begin with, they marked every reference to each group in the 143 texts they were examining. Then, using a fairly complicated and quite precise formula (which is completely discussed in the monograph, but will not be described in detail here), they assigned a weighted, numerical value to each assertion about the group that indicated the degree to which the assertion was positive, neutral, or negative. Using these data, they were able to calculate the degree to which particular texts were positively or negatively biased toward one or another group, to compare texts or groups of texts, and to determine the degree to which books presented "polarized" views of different groups.

They found that while no minority group was consistently treated unfavorably, there were significant differences between the treatment of Christians and Jews, who were treated most positively, and the treatment of Negroes and Indians, who were much less favorably treated in the texts. Some texts did evaluate certain groups (notably Negroes and Indians) negatively. In addition, naive stereotypes were common; in textbooks we are likely to encounter devoted Christians, great Jews, hardworking immigrants, infidel Moslems, primitive Negroes, and savage Indians.

A second phase of the study involved the analysis of illustrations in the sample of texts. In this phase, three groups whose stereotypes lend themselves to visual presentation were selected for analysis: Africans, Asians, and North American Indians. A control group of white Canadians was established. Judges rated the illustrations on a schedule including the following dimensions: Clothing, Aggression, Activity, Authority, Disposition, Presence of Women & Children, and Decoration. (The latter was limited to feathers on North American Indians.)

The findings bore out the original hypothesis that illustrations in social studies texts tend to perpetuate stereotypes of certain groups. North American Indians were least favorably presented, portrayed as primitive, hostile and unskilled. Africans appeared to be more aggressive than Asians and whites, and also were seen to be subordinate to whites more than Asians. Manual work was engaged in by a high proportion of Africans and Asians, and skilled or professional work seemed to be the province of whites.

The third phase of the study was to examine the treatment of certain critical issues in the social studies field in the texts within the sample. A list of 42 issues was drawn up related to the treatment of minorities and important enough to be included in at least one grade level and at least one subject. It was circulated to a number of people active in the Canadian Studies field, who rated each issue according to its relative importance and were encouraged to suggest other issues. Eleven issues were selected, two related to French Canadians, three to the treatment of other groups in Canada, and Canadian legislation against discrimination, one on the concept of race, two related to race relations in the U.S., British rule in Ireland and Nazi treatment of minorities.

Using a short summary of facts about the issue as a standard, judges rated the treatment of the issues in each text. They found that the treatment of the first two issues, which related to French Canadians, was generally adequate, and the treatment of the issue on legislation against discrimination was borderline. In all but a few texts, however, the other eight issues either were not mentioned at all or were inadequately dealt with. In some cases the omissions were related to the dates of publication, since some of the issues became increasingly significant through the 1960s and

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the texts had been published in the 1950s. As the authors point out, however, as books become outdated they should be revised or replaced, particularly in rapidly changing fields like social studies.

The McDiarmid and Pratt study was a complex and broad one. A much simpler study with a narrower focus was conducted at about the same time for the University Women's Club of Port Credit, assessing the treatment of the Canadian Indian (Vanderburgh, 1968). While not methodologically sophisticated, this study may be more appropriate to the kind of survey that curriculum or text selection committees could be expected to undertake. The texts included were the social studies texts in Circular 14 for 1968 for grades 1 to 8. Books were assessed on their treatment of three topics: the original culture of the Canadian Indians, the history of culture contact between Indians and non-Indians in Canada, and the situation of the Canadian Indian today. A frame of reference was developed for each topic, and each text was assessed against that frame of reference. Information is provided about what is included in each text, as well as summary data for each topic.

What are the implications of these studies for school practice? It would seem that throughout the studies we are faced with "sins of commission" and "sins of omission." Some texts that are outdated or that present strongly negative views of particular groups of people should simply (and quickly) be abandoned before they do any more harm in perpetuating stereotypes and negative images. In many cases, however, when no text at a particular grade level is really adequate, or when the authors have omitted important ideas, a more practical – and perhaps more effective – course may be to provide alternative interpretations, corrective information, or additional resources in the classroom itself. Besides giving students a better-balanced picture of the issue or group being studied, this technique also provides opportunities to learn critical reading skills, to evaluate sources of information, and to assess evidence.

Even at a very elementary level, it is possible to do some of this kind of teaching. If primary reading texts imply that mothers only appear in kitchens wearing aprons, children can provide examples from their own lives to indicate that this is not the case: mothers they know drive cars, plant gardens, read books, go to meetings, go to work, paint furniture, and so on. Daddies they know baby-sit, shop for groceries, fix lunch and change babies.

At more sophisticated levels, high school students may want to do individual research on issues inadequately handled in their texts – the status of women, the Beothuks, the civil rights movement. Circular 14 includes an increasing amount of supplementary, issue-specific material that can be used for enlarging the view of a text – or, indeed, for getting along without a text at all.

In addition, the Ministry of Education is now evaluating all new texts to determine the degree to which bias of various sorts exists. Their focus, however, is quite broad, and schools will still need to determine their own standards in selecting from the approved lists.

The studies we have examined have looked at texts from a number of points of view: psychological or sociological frames of reference, treatment of minority groups or sex-role stereotyping, the relationship between text and illustrations, comparisons between children's interests and textbook content, and the adequacy of the treatment of particular issues. All the studies so far seem to have been in the reading or social studies areas. Undoubtedly teachers in other subject areas might raise additional kinds of questions. One might wish to know, for example, the degree to which texts in science present scientific theory or hypothesis as absolute truth. If grade 1 reading texts seem to be "feminine" in their orientation, and therefore unappealing to boys, is there some hidden dimension in primary mathematics materials that shuts off interest and curiosity in little girls? Are literature texts overly representative of nineteenth-century British and American literature, thus slighting modern writers, Canadian writers, Eastern literature, or other possible sources of good writing?

No text, designed as it is for a mass market, will be fully satisfactory to any given teacher or group of teachers. But we may be able to do a more adequate job of selecting texts, or at least of recognizing the strengths and weaknesses of the texts being selected, if some prior thought is given to the basic assumptions we hold about curriculum. The content, the approach, the illustrations, the subtle biases of textbook authors may sometimes be in contradiction to the stated goals of a particular program. Only by measuring texts against our goals can we be forearmed against such unforeseen results.

NOTES

(1) Some preliminary research work in the science area has been undertaken by Brent Kilbourn, a doctoral student in the Curriculum Department at OISE. An initial paper has been published, and Mr. Kilbourn is continuing this line of research for his dissertation.

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